



GSHWG and AAWG Report to ARAC

June 27, 2001

Amos Hoggard
Boeing Commercial Airplane Group

Handout 20

Handout 20

GSHWG Membership



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RLD, Netherlands
FAA US
Boeing (CHAIR)
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General Structures Harmonization Working Group



- General Status Report
- FAR §25.0365(d) Status / Schedule
- FAR §25.0571 - Status / Schedule
- FAR §25.0631 - Status
- FAR §25.0683 - Status / Schedule
- FAR §25.0603 - TOR Issues

General Status Report

General Structures HWG

Status Report

June 2001



Title	CFR Part 14	*Legal	*Economics	Fast Track Report	Status Since Last Report
Published:					
Windshields and Windows	25.775 d	In Work	NR	Complete	FR - Published for Comment
Scatter Factor	25.571	NR	NR	NR	HWG Work Complete
At FAA for Publication:					
Material Strength Properties and Design Values	25.613	Complete	Complete	NR	Economics Finished HWG review
At FAA for Evaluation:					
Proof of Structure	25.307	Complete	Complete	Complete	FAA initiated RPR
Casting Factors	25.621	Complete	Complete	Complete	FAA clearing internal comments
Doors	25.783	Complete	Complete	Complete	Finishing Econ Assesm.
Fuel Tank Access Covers	25.963 e/g	Complete	Complete	Complete	FAA PP has an issue
To Be Submitted to FAA:					
In HWG:					
High Altitude Flight	25.365(d)	In Work	In Work	In Work	In Work
Birdstrike	25.631, 25.775 b, 25.571 e	Under review	Under review	NR	Reviewing FAA R&D Study
Fatigue and Damage Tolerance	25.571	In Work	In Work	NR	In Work
Operational Tests	25.683	In Work	NR	Complete	AC In Work

* Preliminary

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GSHWG/AAWG REPORT TO TAEIG

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FAR 25.365(d) - High Altitude Flight



AVIATION RULEMAKING ADVISORY COMMITTEE WORKING GROUP STATUS FORM

Date: 6/26/01

Parent Issue Group **ARAC - Transport Airplane and Engines Issues Group**

Working Group Name **Structures General Harmonization Working Group**

Task Title **High Altitude Flight, 25.365(d), AC 25-20 Para 8**

Harmonization Number (If Applicable)

Task Description

Review 14 CFR 25.365(d), in particular the factors applied to the maximum relief value setting, which is used to set a limit structural design load (load). Review FAA and Joint Aviation Authority (JAA) advisory material and paragraph 8 of Advisory Circular 25-20. In light of this review, develop a report recommending changes to harmonize this section and the corresponding JAR paragraphs, recommending new harmonization standards, and develop related or revised advisory material as well.

Product: NPRM ☒ AC ☒ Other ☐

SCHEDULE	FORECAST	COMPLETE
TASKING PUBLISHED		October, 2000
WORK PLAN APPROVAL	March 2001	March 2001
TECHNICAL AGREEMENT- REQUEST DRAFTING SUPPORT	October, 2001	
DRAFT OF PRODUCT REVIEW- REQUEST ECON-LEGAL REVIEW	December 2001	
COMPLETION OF ECON-LEGAL REVIEW	May 2002	
RECOMMEND TO ARAC (ISSUE GROUP)	June 2002	
RECOMMEND TO FAA	July 2002	
PUBLISH NOTICE	2 rd Qtr 2003	
PUBLISH FINAL	2 rd Qtr 2004	

Status: **Working Group has developed a list of technical areas where agreement is needed. There is, in addition, a collateral tasking in 25.841 that affects this activity. Some of our work will depend on how that tasking is approached. The Mechanical Controls Working Group Chair has been approached to determine the best way to interface.**

Next Action: **Reach Technical Agreement**

Future Meetings: **London, UK October 8-12, 2001**

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GSHWG/AAWG REPORT TO TAEIG

FAR §25.0365(d)/AC 25-20 Issues



- * AC 25-20 Has listed a number of failure conditions to be considered.
- * A number of those conditions have no rational failure model associated with the threat (e.g. Tire Burst)
- * The GSHHW, in order to complete its work, will need some assistance from other WGs to define the failure model / threat.

FAR 25.571 Damage Tolerance



AVIATION RULEMAKING ADVISORY COMMITTEE WORKING GROUP STATUS FORM

Date: 6/26/01

Parent Issue Group **ARAC - Transport Airplane and Engines Issues Group**
 Working Group Name **Structures General Harmonization Working Group**
 Task Title **Fatigue and Damage Tolerance 25.571**
 Harmonization Number (If Applicable)
 Task Description: **Develop a harmonized 25.571 rule and advisory material.**
 Product: NPRM ☒ AC ☒ Other ☐

SCHEDULE	FORECAST	COMPLETE
WORK PLAN APPROVAL		July 1995
TECHNICAL AGREEMENT- REQUEST DRAFTING SUPPORT		October 1997 Rev. March 1998
Reopening due to Amdt 96 and AAWG	August 1999	August 1999
DRAFT OF PRODUCT REVIEW- REQUEST ECON-LEGAL REVIEW	2 nd Quarter 2001	
COMPLETION OF ECON-LEGAL REVIEW	3 rd Qtr 2001	
RECOMMEND TO ARAC (ISSUE GROUP)	December 2001	
RECOMMEND TO FAA	1 st Qtr 2002	
PUBLISH NOTICE	2 st Qtr 2002	
PUBLISH FINAL	3 rd Qtr 2002	

Status: HWG Technical Agreement was reached March 1998. FAA published Amendment 25-96 and AC in March 1998. The harmonized preamble has been revised in light of the new rule. HWG has reconsidered the status of it's work and has agreed to reopen the harmonization effort in light of Amdt 96 and the work of the AAWG and FAA/Industries desire to re-instate fail-safe requirements. Estimate of work package to be submitted has now been revised to:

1. REVISED 25.571
2. REVISED AC 25.571
3. REVISED 25.1529

New Estimated completion date – 4nd quarter 2001.

In April the GSHWG presented the work plan concept to TOGAA and gained their support of the direction of the group.

Next Action: **Develop Technical Consensus -Finalize rule and AC language.**

Future Meetings: **London October 2001**

FAR 25.631 Bird Strike



AVIATION RULEMAKING ADVISORY COMMITTEE WORKING GROUP STATUS FORM

Date: 6/26/01

Parent Issue Group **ARAC - Transport Airplane and Engines Issues Group**

Working Group Name **Structures General Harmonization Working Group**

Task Title **Birdstrike Damage**

Harmonization Number (If Applicable) **17**

Task Description

Develop new or revised requirements for the evaluation of transport category airplane structure for in-flight collision with a bird, including the size of the bird and the location of impact on the airplane (FAR 25.571, 25. 631, 25.775, and other conforming changes).

Product: NPRM ☒ AC ☒ Other ☐

SCHEDULE	FORECAST	COMPLETE
WORK PLAN APPROVAL		February 1994
TECHNICAL AGREEMENT- REQUEST DRAFTING SUPPORT		October 1994
DRAFT OF PRODUCT REVIEW- REQUEST ECON-LEGAL REVIEW		July 7, 1995
ASSIST FAA IN COMPLETION OF UIUC R&D PROGRAM	Jan 2002	
REASSESS TECHNICAL POSITION AND SET COURSE OF ACTION	April 2002	
SUBMIT REVISED DOCUMENTS FOR ECON-LEGAL REVIEW	June 2002	
COMPLETION OF ECON-LEGAL REVIEW	Sept 2002	
RECOMMEND TO ARAC (ISSUE GROUP)	December 2002	
RECOMMEND TO FAA	First Qtr 2003	
PUBLISH NOTICE	3 rd Qtr 2003	
PUBLISH FINAL	3 rd Qtr 2004	

Status: **FAA/JAA position on Bird Weight has been published, FAA is currently involved with UIUC in an R&D program to develop bird populations and probability of airplane/bird encounters. Industry has agreed to assist.**

Next Action: **Waiting for results of the FAA sponsored R&D program**

Future Meetings: **As necessary**

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FAR 25.683 - Operational Tests



AVIATION RULEMAKING ADVISORY COMMITTEE WORKING GROUP STATUS FORM

Date: 6/26/01

Parent Issue Group **ARAC - Transport Airplane and Engines Issues Group**

Working Group Name **Structures General Harmonization Working Group**

Task Title **Operational Tests, 25.683**

Harmonization Number (If Applicable)

Task Description: **Develop advisory material for enveloped per fast track report.**

Product: NPRM ☒ AC ☒ Other ☐

SCHEDULE	FORECAST	COMPLETE
WORK PLAN APPROVAL		December 2000
ESTABLISH SPECIALIST SUB-TEAM	April 2001	June 2001
TECHNICAL AGREEMENT- REQUEST DRAFTING SUPPORT	October 2001	
DRAFT OF PRODUCT REVIEW- REQUEST LEGAL REVIEW	January 2002	
COMPLETION OF LEGAL REVIEW	2 rd Qtr 2002	
RECOMMEND TO ARAC (ISSUE GROUP)	3 rd Qtr 2002	
RECOMMEND TO FAA	3 rd Qtr 2002	
PUBLISH NOTICE	4 th Qtr 2002	
PUBLISH FINAL	4 th Qtr 2003	

Status: **HWG has determined that a sub group of specialists is required to establish the advisory material. The HWG will assign the responsibility to this group of individuals to come up with the required AC material. The group has now been formed and work will commence in the month of July. The FAA has produced Draft NPRM based on the submitted Fast Track Report**

Next Action: **Technical agreement**

Future Meetings: **No formal meetings planned**

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§25.0683 Sub Team



Organization	Name	E-mail
Airbus	Traverse	
Boeing	A. Hoggard	Amos.w.hoggard.jr@boeing.com
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TC	W. Taylor	taylorw@tc.gc.ca

§25.0603 Issues



- * Recently an ATR was circulated on this subject.
- * This ATR was discussed last week in the GSHWG
 - One JAA Representative on the GSHWG said
 - + that this tasking merely involves the enveloping of NPA 25D-256 into an FAA AC.
 - + That this has been “agreed to” by the Harmonization Council.
 - Another JAA Representative said that the current rule does not intuitively link with the subject of the NPA and therefore has suggested that the rule might need a change.
 - If the first JAA Representative is correct, then why is there a task being considered at all?
- * Boeing is having considerable difficulty seeing the need.

AAWG Membership

May 2001

E-mail Listing for AAWG



Last Name	First Name	Member	E-mail Address
Ayers	Andy	YES	andy.k.ayers@lmco.com
Bandley	Brent	YES	brent.bandley@faa.gov
Bristow	John	YES	john.bristow@srg.caa.co.uk
Carter	Aubrey (Co-Chair)	YES	aubrey.carter@delta-air.com
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Collier	Don	YES	dcollier@air-transport.org
Fenwick	Linsay	YES	fenwickl@alpa.org
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Sobeck	Fred	YES	frederick.sobeck@faa.gov
Tedford	Gareth	YES	Gareth.1.tedford@british-airways.com
Walder	Ray	YES	walderr@iata.org
Yerger	Mark	YES	mdyerger@fedex.com

Airworthiness Assurance Working Group



- December, 1999 Tasking – WFD
- March 22, 2001 Tasking RE: Multiple Complex STCs

December 1999 Tasking RE: WFD



*** Happenings since March**

- May 2, 2001 - FAA Finishes Economic Evaluation (well almost)
- May 23, 2001 - AAWG Approves Finalized Rule and AC for Submittal to TAEIG
- Issues - Economic Evaluation still lacks Assessment on Impact to Small Entities.
- AAWG Believe that this is not Significant and is Submitting the Rule and AC to the TAEIG for Approval Today.
- AAWG will Retable Issue as Necessary

WFD Tasking Continued



- * Mr. Chairperson - The Vote Please.

March 22, 2001 Tasking RE: Multiple Complex STCs



- * The AAWG has appointed a team of specialists from its ranks to complete the tasking.
- * A chartering statement has been drafted and approved for the group to operate.
- * A first meeting of the group has been planned (Gatwick August 2001)
- * The first order of business is the development of a work plan for approval and submittal to the TAEIG in September.

Multiple Complex STCs

Sub-Team Chartering Statement



1. The Tasking be handled by a task team comprised of interested parties who belong to the AAWG with representation from the operators, regulators and OEMs.
2. The Task Team would be responsible to the AAWG and is expected to produce the report mentioned in the tasking statement.
3. The Task Team would develop a work plan and statements of work associated with each element of the work plan and a schedule for completion. In this activity, the task team would seek clarification from ARAC of any elements that might not be well defined.
4. The Task Team would present the work plan for AAWG/TAEIG approval at the next meeting.
5. Commitment would be for seven total meetings leading to AAWG approval of the final report in September 2002. Meeting would alternate between Europe and America.
6. Recommend first meeting of the Task Team to be in Gatwick UK the week of August 20, 2001

Multiple Complex STCs

Sub-Team



Organization	Representative	E-mail
Airbus	TBD	TBD
BA*	TBD	TBD
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IATA	TBD	TBD
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UPS	Donn Knight (or Designee)	Deknight@ups.com
US Airways	Jon Oberdick	Jobber@usairways.com

* Decision is pending